

ABSTRACT OF THE DISCLOSURE

An apparatus and method is described to form and join a short flange on a periphery of a sheet material supported in a nest (30). The apparatus includes a positional pressure forming steel (PPFS) assembly (50) located on the end of a robotic arm (42). The PPFS assembly (50) includes a hub (52) slidably supported in a cylinder (56). At least one tool steel (70, 70', 70'') is located on an extension (68, 68') from the hub (52). A biasing element (58) interposed between the cylinder (56) and the hub (52) enables precise control of the forming pressure by defining a tool path control program which maintains a relative relationship between the PPFS assembly (50) and the nest (30).

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